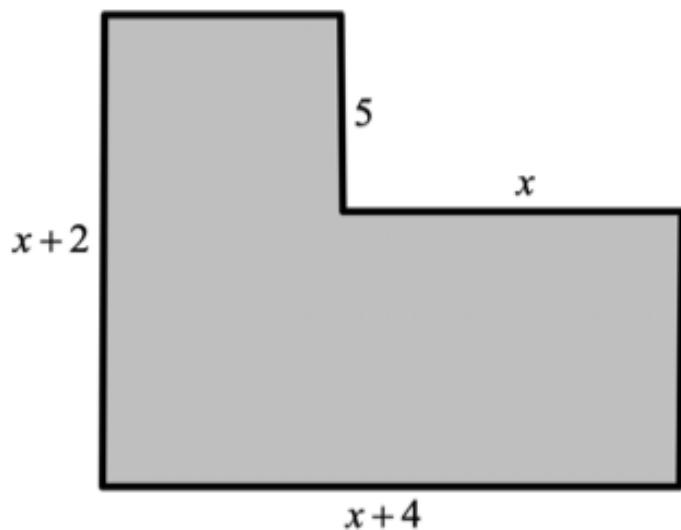


Quadratics (6) Forming and solving

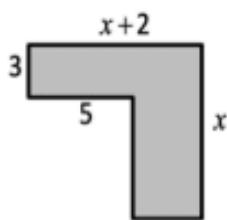
Do now:

The shape shown has an area of 80cm^2 . What is its perimeter?

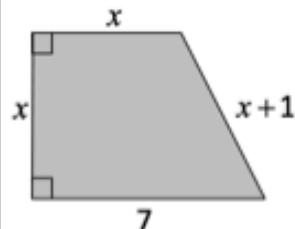


For each question, form and solve a quadratic equation to find the value of x

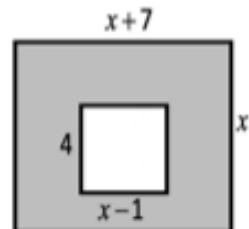
a) Area = 69



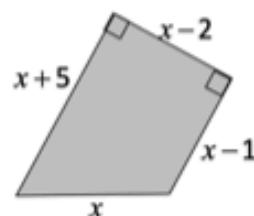
c) Area = 22



b) Area = 92



d) Area = 96



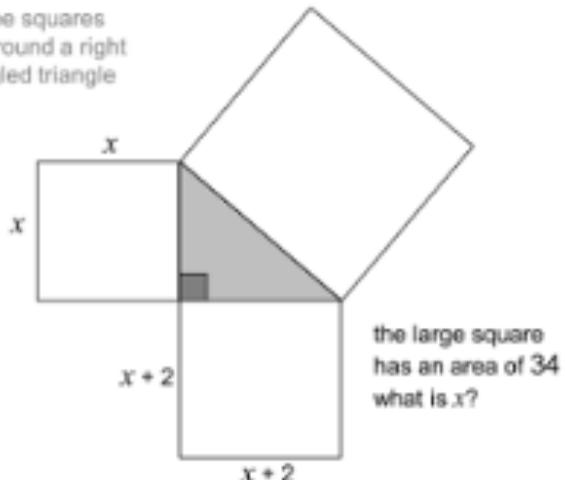
e) I think of two numbers, 4 apart.
Their product plus their sum is 44.
What are the two numbers?

f) I think of two numbers, 7 apart.
The sum of their squares is 137.
What are the two numbers?

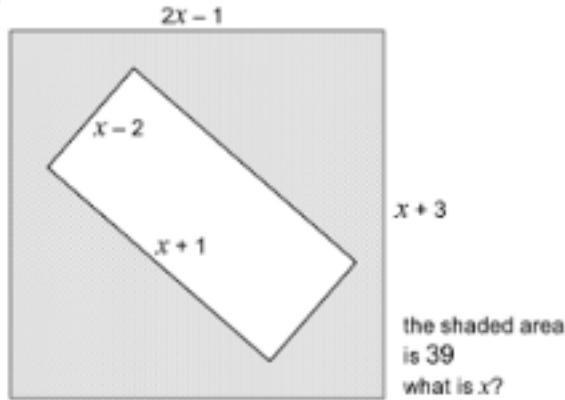
g) I think of two numbers, 3 apart.
The sum of their squares is
twelve more than their sum.
What are the two numbers?

h) I think of two numbers, 5 apart.
Their product is six times their sum.
What are the two numbers?

(1) three squares
surround a right
angled triangle

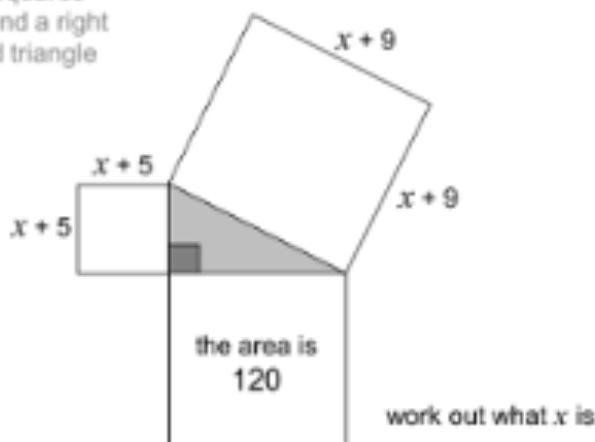


(2)



the shaded area
is 39
what is x ?

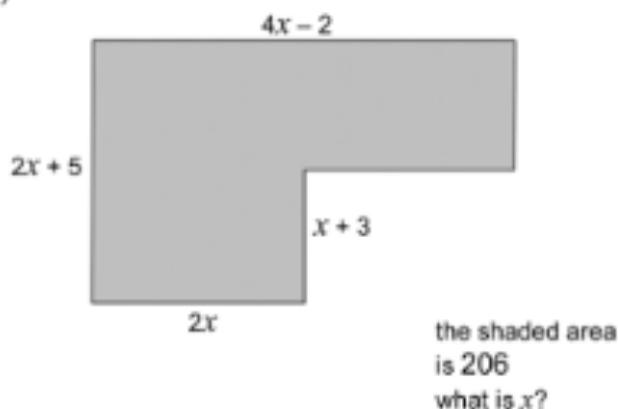
(3) three squares
surround a right
angled triangle



the area is
120

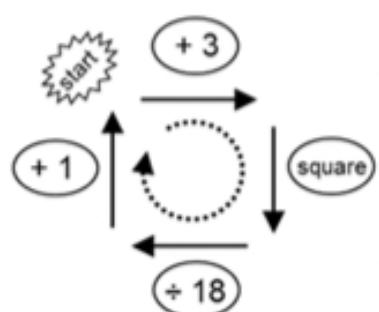
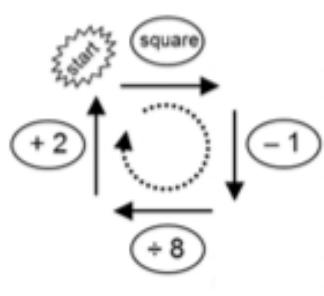
work out what x is

(4)

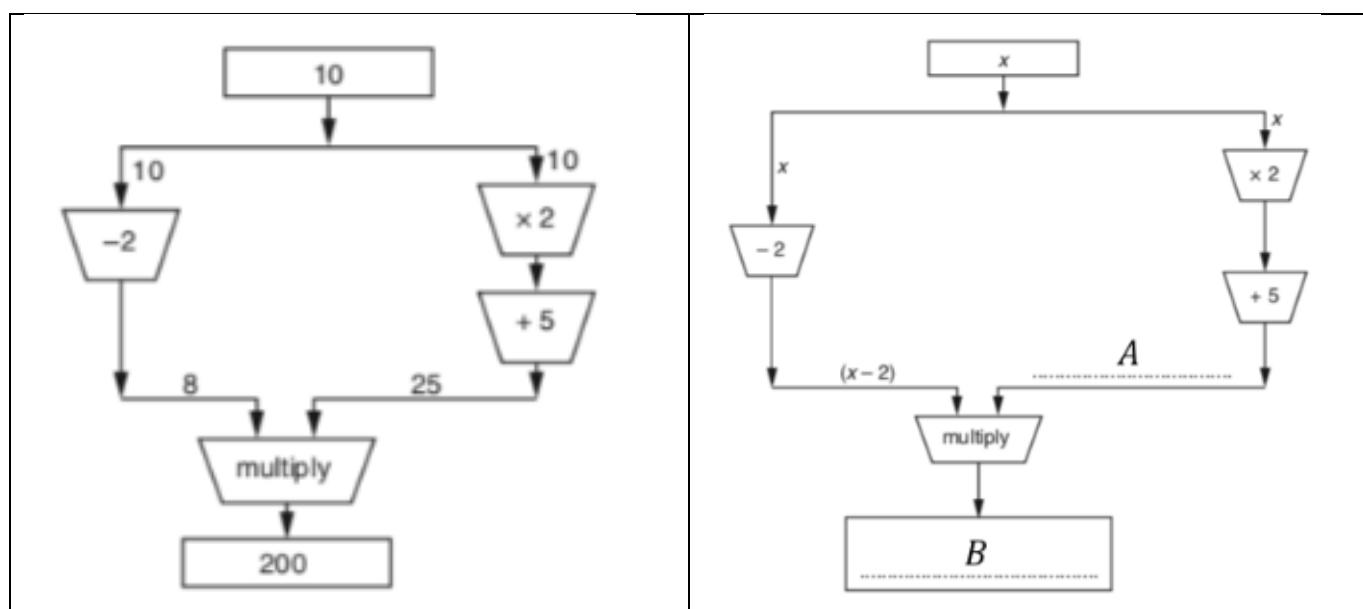


the shaded area
is 206
what is x ?

Can you find the numbers which come out the same as what you start with?



Challenge II



Which inputs would give an output of 35?